



SPECIFICATION

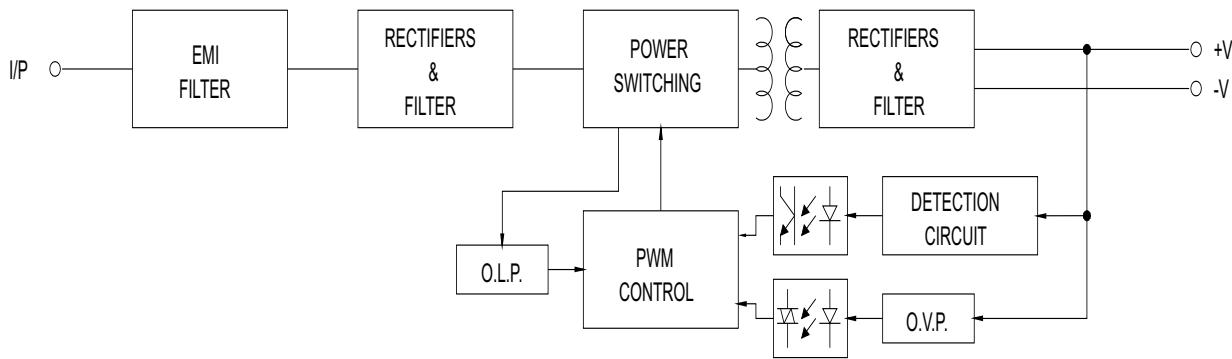
MODEL	HDR-60-5	HDR-60-12	HDR-60-15	HDR-60-24	HDR-60-48		
OUTPUT	DC VOLTAGE	5V	12V	15V	24V		
	RATED CURRENT	6.5A	4.5A	4A	2.5A		
	CURRENT RANGE	0 ~ 6.5A	0 ~ 4.5A	0 ~ 4A	0 ~ 2.5A		
	RATED POWER	32.5W	54W	60W	60W		
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p		
	VOLTAGE ADJ. RANGE	5.0 ~ 5.5V	10.8 ~ 13.8V	13.5 ~ 18V	21.6 ~ 29V		
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%		
	SETUP, RISE TIME	500ms, 50ms/230VAC	500ms, 50ms/115VAC at full load				
INPUT	HOLD UP TIME (Typ.)	30ms/230VAC	12ms/115VAC at full load				
	VOLTAGE RANGE	85 ~ 264VAC (277VAC operational)	120 ~ 370VDC (390VDC operational)				
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	85%	88%	89%	90%		
	AC CURRENT (Typ.)	1.2A/115VAC	0.8A/230VAC				
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC	60A/230VAC				
	OVERLOAD	105 ~ 160% rated output power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed Constant current limiting within 50% ~100% rated output voltage, recovers automatically after fault condition is removed					
	OVER VOLTAGE	5.75 ~ 6.75V	14.2 ~ 16.2V	18.8 ~ 22.5V	30 ~ 36V		
		Protection type : Shut down o/p voltage, re-power on to recover					
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) RH non-condensing					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6					
	OPERATING ALTITUDE	2000 meters					
SAFETY & EMC (Note 4)	OVER VOLTAGE CATEGORY	III ; According to EN61558, EN50178, EN60664-1, EN62477-1 ; altitude up to 2000 meters					
	SAFETY STANDARDS	UL62368-1, UL508, TUV BS EN/EN61558-2-16, BS EN/EN61558-1, IEC62368-1, EAC TP TC 004, BSMI CNS14336-1, IS13252(Part1)/IEC60950-1 approved; Design refer to BS EN/EN62368-1					
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Parameter	Standard	Test Level / Note			
		Conducted	BS EN/EN55032(CISPR32), CNS13438	Class B			
		Radiated	BS EN/EN55032(CISPR32), CNS13438	Class B			
		Harmonic Current	BS EN/EN61000-3-2	Class A			
		Voltage Flicker	BS EN/EN61000-3-3	-----			
	EMC IMMUNITY	BS EN/EN55024, BS EN/EN55035, BS EN/EN61000-6-2, BS EN/EN61204-3					
		Parameter	Standard	Test Level / Note			
		ESD	BS EN/EN61000-4-2	Level 3, 8KV air; Level 2, 4KV contact, criteria A			
		Radiated Susceptibility	BS EN/EN61000-4-3	Level 3, criteria A			
		EFT/Burst	BS EN/EN61000-4-4	Level 3, criteria A			
		Surge	BS EN/EN61000-4-5	Level 4, 2KV/L-N, criteria A			
		Conducted	BS EN/EN61000-4-6	Level 3, criteria A			
		Magnetic Field	BS EN/EN61000-4-8	Level 4, criteria A			
		Voltage Dips and interruptions	BS EN/EN61000-4-11	>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods			
OTHERS	MTBF	927.6K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	52.5*90*54.5mm (W*H*D)					
	PACKING	190g;60pcs/12.4Kg/0.97CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf & 47μf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						



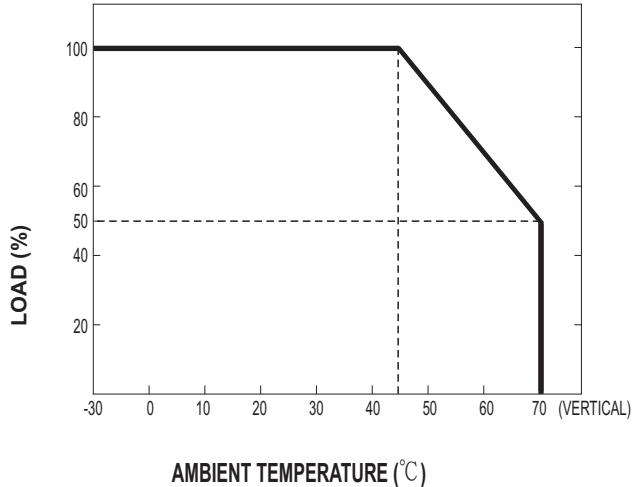
60W Ultra Slim Step Shape DIN Rail

HDR-60 series

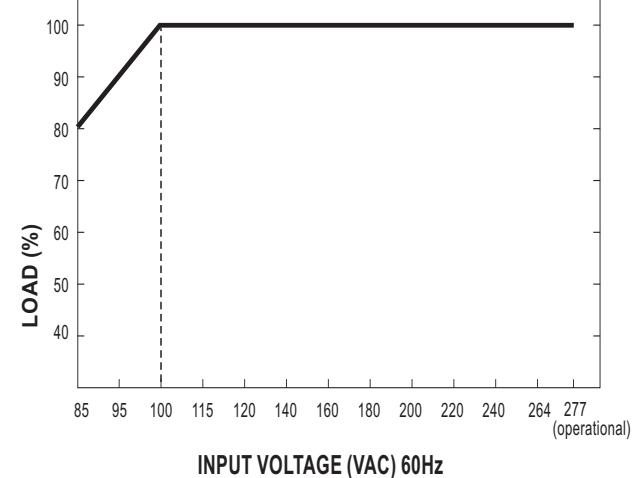
■ Block Diagram



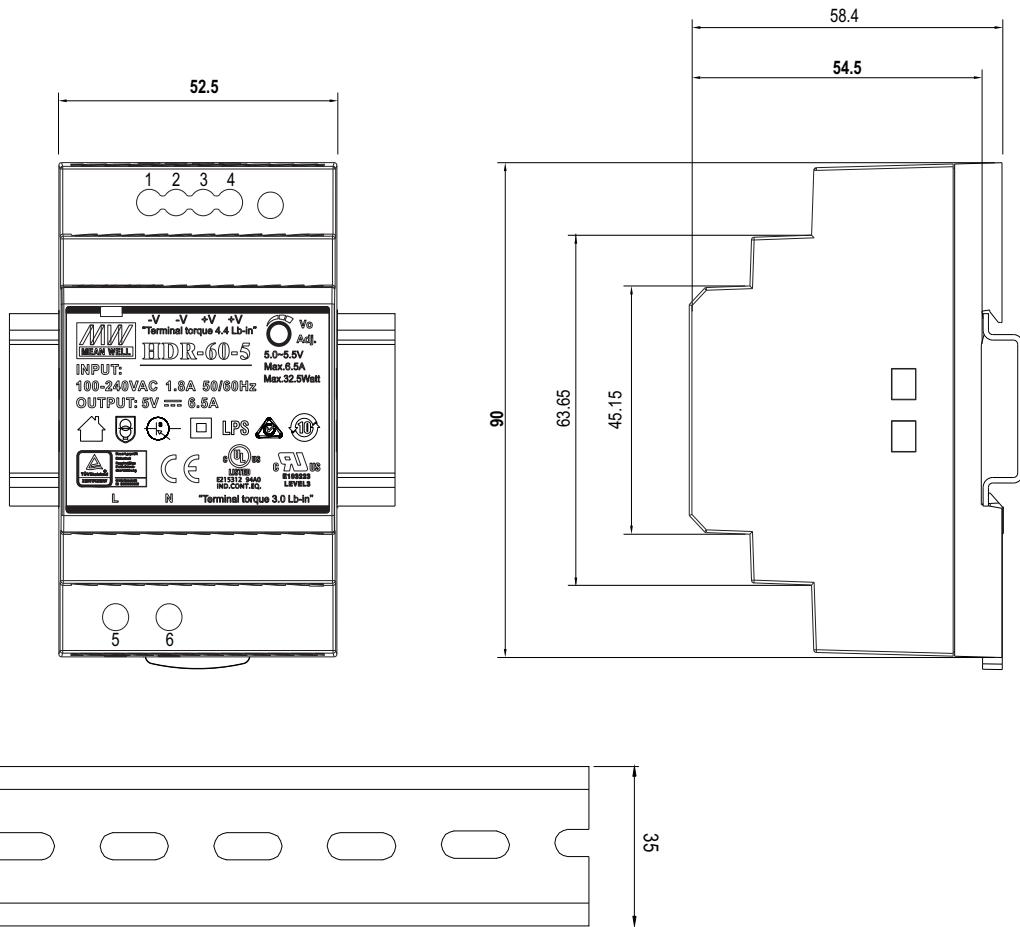
■ Derating Curve



■ Output Derating VS Input Voltage



■ Mechanical Specification

 (Unit: mm, tolerance ± 0.5 mm)


ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1,2	-V	5	AC/L
3,4	+V	6	AC/N

■ Installation Manual

 Please refer to : <http://www.meanwell.com/manual.html>